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添付公開書類:
— 国際調査報告書

2文字コード及び他の略語については、定期発行される各PCTガゼットの巻頭に掲載されている「コードと略語のガイダンスノート」を参照。

(54) Title: LUBE BASE OIL AND LUBRICATING OIL COMPOSITION

(54) 発明の名称: 潤滑油基油及び潤滑油組成物

(57) Abstract: A lube base oil other than silicone oil having a kinematic viscosity of 12 mm²/s or below at 40°C, exhibiting, in Noack test (250°C, 1 hr), an evaporation loss of 30 mass% or below and/or a flash point of 200°C or higher, and exhibiting an aniline point of 60°C or higher. There is also provided a lubricating oil composition comprising the lube base oil mixed with at least one additive selected from the group consisting of an antioxidant, a viscosity index improver, a detergent dispersant, a friction reducing agent, a metal inactivator, a pour point depressant, an abrasion resisting agent, a defoamer and an extreme-pressure additive. The lube base oil and lubricating oil composition realize reduction of evaporation loss despite being of low viscosity and excellent compatibility with organic materials.

(57) 要約: 本発明は、シリコンオイルを除く潤滑油基油であって、40°Cにおける動粘度が12 mm²/s以下であり、Noack試験 (250°C、1時間) による蒸発減量が30質量%以下及び/又は引火点が200°C以上であり、かつアニリン点が60°C以上である潤滑油基油、該潤滑油基油に、酸化防止剤、粘度指数向上剤、清浄分散剤、摩擦低減剤、金属不活性化剤、流動点降下剤、耐摩耗剤、消泡剤及び極圧剤の中から選ばれる少なくとも一種の添加剤を配合してなる潤滑油組成物であり、低粘度でありながら、蒸発量が少なく、有機材との適合性に優れた潤滑油基油及び潤滑油組成物を提供する。

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/16597

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ C10M171/00, 105/02, 105/18, 107/02//C10N20:00, 20:02,
30:00, 40:25

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ C10M171/00, 105/02-105/06, 105/18, 107/02-107/18,
C10N20:00-20:02, 30:00, 40:25-40:28

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho 1922-1996 Toroku Jitsuyo Shinan Koho 1994-2004
Kokai Jitsuyo Shinan Koho 1971-2004 Jitsuyo Shinan Toroku Koho 1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	EP-992570 A2 (TONEN CORP.), 12 April, 2000 (12.04.00), & CA 2284343 A1 & JP 2000-109876 A	1-4, 7-9 5-6
X Y	JP 8-259974 A (Idemitsu Kosan Co., Ltd.), 08 October, 1996 (08.10.96), (Family: none)	1-4, 7-9 5-6
X Y	JP 9-100480 A (Idemitsu Kosan Co., Ltd.), 15 April, 1997 (15.04.97), (Family: none)	1-4, 7-9 5-6
X Y	JP 2000-44971 A (Idemitsu Kosan Co., Ltd.), 15 February, 2000 (15.02.00), (Family: none)	1-4, 7-9 5-6

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

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Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/16597

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	JP 2002-146381 A (Kosumo Sekiyu Ruburikantsu Kabushiki Kaisha), 22 May, 2002 (22.05.02), (Family: none)	1-4, 7-9 5-6
X Y	JP 2-300293 A (Kabushiki Kaisha Nihon Koyu), 12 December, 1990 (12.12.90), (Family: none)	1-4, 7-9 5-6
Y	JP 10-324883 A (Idemitsu Kosan Co., Ltd.), 08 December, 1998 (08.12.98), (Family: none)	5-6
E, X E, Y	JP 2004-51720 A (Idemitsu Kosan Co., Ltd.), 19 February, 2004 (19.02.04), (Family: none)	1-4, 7-9 5-6